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**HEADLINE:** THE CHALKBOARD LAURA PAPPANO; HAVE COMPUTERS LEFT PENMANSHIP FOR THE HISTORY BOOKS?

**BYLINE: BY LAURA PAPPANO** 

## **BODY:**

Several decades ago when a teacher said an assignment had to be typed, students would let out a collective groan: Can it be handwritten? Neatly?

Poll students today (as I did recently) about whether they prefer writing by hand or typing on the computer, and the results are overwhelming: the computer wins.

"I type faster, so it doesn't take as long," said Meaghan McDermott, 13, of Randolph, an eighth-grader at St. Mary of the Hills School in Milton.

Classmate Theresa O'Toole, 13, of Milton, said writing hurts her hand. Typing, she says, is easier. Even younger students such as third-grader Christopher Ryan, 8, of Milton, prefer typing: "It's really fun to get on the computer," he said.

Is writing dead? Is penmanship a fading skill?

As computer use soars among students at all grade levels, educators are struggling to figure out when to teach students proper keyboarding and how to balance computer and handwriting skills.

Census figures show nearly two-thirds of all children ages 3 to 17 live in a household with a computer, and 30 percent use the Internet at home. Today, 98 percent of schools have Internet access compared with 35 percent in 1994, according to the National Center for Education Statistics.

Like it or not, computers are a central part of our children's world. But how important is penmanship?

Curtis Bates, principal of the Harrington School in Chelmsford, this year for the first time had students working on a principal's Halloween writing project passing in typed pieces. They were easier to read, but Bates said he's concerned children - even at very young ages - are not getting enough exposure to fine motor activities.

"We find more and more children are coming into schools that don't have these fine motor skills - they are not playing with clay, they are not finger-painting," he said. "In kindergarten, we find some children who really have not touched a pair of scissors."

At St. Mary of the Hills, students may prefer keyboarding, but principal Sharon Sinnott, a one-time keyboarding instructor, has made proper penmanship a priority, including having students do "principal's writing samples" to check letter formation.

"Penmanship is important," said Sinnott. "It is a skill just like speaking that you use all the time. You have to fill out applications for college or employment applications or general correspondence."

Sinnott also argues that getting students to write longhand also forces them to slow down and think more deeply.

Students who do assignments using a computer, she argues, can also use spelling and grammar checks, camouflaging trouble spots. And at home, younger children who have assignments typed may ask parents for help -

parents who may "fix" writing as they go. Despite the fact that eighth-grade US history teacher Jamey Manning asks for handwritten homework, a glance at a recent assignment to write about Merrimac and the Monitor, two Civil War ironclads, revealed several typed papers.

Manning insists on handwritten assignments to be sure students are synthesizing information, not just cutting and pasting information. "I know it forces them to read," he said. When students use the computer, he said, "I'm convinced they pull the information up and hit the print button."

Learning to write may be important, but Michael Russell, professor at the Lynch School of Education at Boston College, said computer skills are the future. In a 1997 study with BC colleague Walt Haney, Russell (who has replicated study results four times since) found students used to writing with computers wrote better essays at the keyboard - even without spelling or grammar checks - than with pencil and paper.

Other research, he said, shows computer use boosts improvement in student writing. "When students use computers regularly for writing, and they are drafting using computers, their writing skills get better, and it happens at a faster rate," he said.

Russell said yet another study he did found students as young as third grade could improve keyboarding skills with instruction. Computer use is so common, he argues, that students should be taught keyboarding early.

"If we believe kids should be keyboarding down the road, we ought to be introducing the proper method earlier," said Russell. "If kids don't learn sometime between third and fourth grade, they develop their own hunt-and-peck method."

Edward Lee, principal of Hanover Middle School, said the district is experimenting with teaching keyboarding earlier - introducing it in fifth and sixth grades. "The keyboarding has typically been done at the 10th-grade level," he said. "We are looking at moving that down."

From an educational standpoint, Lee favors earlier keyboarding, but has reservations about student health. "We don't want to get involved in something that will create a health issue for children as they grow older," such as computer-use-related injuries. And while handwriting remains important, it is challenging to fit in all the instruction, Lee said. "There clearly is a time problem," he said.

The image of students sitting at computers may worry health-conscious adults, but occupational therapist Karen Jacobs said her research of sixth- and seventh-graders and computer use offers hope.

Jacobs, a clinical professor at the Sargent College of Health and Rehabilitation Sciences at Boston University, said her study of 363 students shows that students who learn proper keyboarding techniques are less likely to suffer injuries than those who hunt and peck. In her study, Jacobs has found that 42 percent of the children have muscular-skeletal problems, including with their necks and shoulders. She believes the problems are a result of poor computing habits and heavy backpacks.

Interestingly, Jacobs said the injury-free students are those with good touch-typing skills who can work without hunching over. Frequent stretching also helps. (To download her free stretch-break software, visit people.BU.edu/kjacobs and click on "Stretch break for kids." It may be getting harder, however, to balance learning handwriting and proper keyboarding. One has only to look at the history of penmanship - from the beauty of handwriting in the 17th and 18th centuries to the illegible scrawls that are common today - to see the deflated social status of penmanship.

**TechBoston** Academy, a new Boston public high school, is rooted in the belief that computer use is essential to life success. The key tool here is not the pencil, but the laptop, which the school issues to each student. Students learn skills from managing e-mail to Web design to traditional English classes. Some work is done by hand, but the school favors the computer. Principal Mary Skipper said one requirement in English class is that students learn to type 30 words per minute.

"The idea was that all students needed a baseline of ability with the keyboard so they could use it as a tool," she said.

"Typing skills are essential to them keeping up with their work. It is a new form of literacy."

That form of literacy comes with its own flourishes - "L8" for late, "U" for you, "B4" for before, etc. - that are the keyboard equivalent to hearts for dots over the letter "i." Skipper makes it clear to students that such frills are not part of serious communication.

"If they are sending e-mail to teachers or mentor/tutors, it needs to be in business language, which means you don't use shorthand, but appropriate grammar," she said.